DOCUMENT RESUME

ED 230 930 CS 007 214

TITLE Testing and Evaluation in Reading and Communication Skills: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," January through June 1983 (Vol. 43 Nos. 7 through 12).

INSTITUTION ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.

PUB DATE 83

NOTE 14p.; Pages may be marginally legible.

PUB TYPE Reference Materials - Bibliographies (131) -- Reports - Research/Technical (143)

EDRS PRICE MF01/P01 Plus Postage.

DESCRIPTORS Annotated Bibliographies; *Cloze Procedure; Cognitive Style; *Doctoral Dissertations; Elementary Secondary Education; *Evaluation Methods; Gifted; Questioning Techniques; Readability; Reading Achievement; *Reading Comprehension; *Reading Research; *Reading Tests

ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 26 titles deal with a variety of topics, including the following: (1) the comprehension monitoring abilities of tenth graders; (2) elementary school pupils' abilities to perform closure at various case grammar positions at their independent reading levels; (3) the influence of staging on children's comprehension of expository discourse; (4) process and product measures of comprehension in formal testing and informal reading-to-learn situational contexts; (5) training with forced-choice cloze tasks; (6) the sentence-combining ability and the reading comprehension of sixth-grade readers; (7) the quantity and variety of eighth graders' inferences in response to two narratives as assessed by oral recall and oral introspection; (8) identification of the gifted through cognitive level and reading achievement; (9) the development of a diagnostic instrument for determining needs for inservice training in reading comprehension; (10) the effects of readability, study guides, and listening-reading on the comprehension of sixth grade social studies textbook materials; (11) interlocking and noninterlocking reading guides; (12) the use of adjunct questions on prose comprehension; (13) factors relating to dissimilar reading achievement in matched secondary schools; and (14) the effects of instructions to image and testing condition on rate of reading and comprehension question performance. (HOD)

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Testing and Evaluation in Reading and Communication Skills:

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of the
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CS 007 214

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Abstracts of the following dissertations are included in this collection:

Adelman, Pamela Kozoll
THE EFFECT OF QUESTIONING AND REREADING UPON COMPREHENSION OF WELL-FORMED AND GOAL-DELETED STORIES BY BOTH GOOD AND POOR READERS

Armstrong, Diane P.
THE EFFECT OF INTERLOCKING AND NON-INTERLOCKING READING GUIDES ON THE TEXT COMPREHENSION OF ELEVENTH GRADE ENGLISH STUDENTS

Bell, V. Lawrence
RELATIONSHIP BETWEEN PLACEMENT AND PRESENTATION OF LEVELS-OF-COMPREHENSION GUIDES AND READING COMPREHENSION

Bissell, Laurice Vandermer
TRAINING WITH FORCED-CHOICE CLOZE TASKS

Ford, Jeffrey Clarence
AN INVESTIGATION OF THE COMPREHENSION MONITORING ABILITIES OF TENTH GRADERS

Hudson, Tate Mason Brewster
A STUDY OF DOCUMENTS TO MEASURE EARLY ADOLESCENTS, THEIR PIAGETIAN STAGES OF DEVELOPMENT, IQ LEVELS, AND THE INTERACTION OF THESE AND OTHER VARIABLES IN PREDICTING SUCCESS ON A GRAMMAR TASK

Keene, Bernard James
THE EFFECTS OF INSTRUCTIONS TO IMAGE AND TESTING CONDITION ON RATE OF READING AND COMPREHENSION QUESTION PERFORMANCE

Klauk, E. Russell
THE INFLUENCE OF STAGING ON CHILDREN'S COMPREHENSION OF EXPOSITORY DISCOURSE

McAuliffe, Sheila Rae
PROCESS AND PRODUCT MEASURES OF COMPREHENSION IN FORMAL TESTING AND INFORMAL READING-TO-LEARN SITUATIONAL CONTEXTS

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THE EFFECTS OF ADJUNCT QUESTIONS ON PROSE COMPREHENSION IN HIGH VOCABULARY/LOW COMPREHENSION HIGH SCHOOL STUDENTS

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Marandos, Sam Anthony
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Mills, Sheila Ann Buzas
AN EXAMINATION OF ELEMENTARY PUPILS' ABILITIES TO PERFORM CLOSURE AT VARIOUS CASE GRAMMAR POSITIONS AT THEIR INDEPENDENT READING LEVELS

Moeller, Norma M.
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Mohler, Lynette Eileen Zuroff
THE INTERRELATIONSHIPS OF FOURTH GRADE STUDENTS READING ACHIEVEMENT, ORAL GENERATION AND WRITTEN PRODUCTION AS DETERMINED BY FACTORS FOUND IN FOUR READABILITY FORMULAS

Padak, Nancy Doyle
THE QUANTITY AND VARIETY OF EIGHTH GRADERS' INFERENCES IN RESPONSE TO TWO NARRATIVES AS ASSESSED BY ORAL RECALL AND ORAL INTROSPECTION

Peterson, Becky Karen
THE EFFECT OF TABULAR AND GRAPHIC PRESENTATION ON READER RETENTION, READER REACTION AND READING TIME

Saperton, Patricia Santemma
IDENTIFICATION OF THE GIFTED THROUGH COGNITIVE LEVEL AND READING ACHIEVEMENT

Sharp, Patricia Maloney
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Slater, Wayne Harvard
THE EFFECTS OF STRUCTURAL ORGANIZERS AND RHETORICAL PREDICATES ON THE RECALL OF EXPOSITORY TEXT

TURNER, Ralph J.
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Watkins, Dodge Ronald
THE DEVELOPMENT OF A DIAGNOSTIC INSTRUMENT FOR DETERMINING NEEDS FOR INSERVICE TRAINING IN READING COMPREHENSION

THE EFFECT OF QUESTIONING AND REREADING UPON COMPREHENSION OF WELL-FORMED AND GOAL-DELETED STORIES BY BOTH GOOD AND POOR READERS

Order No. DA8305450

ADELMAN, PAMELA KOZOLL, PH.D. *Northwestern University*, 1982. 169pp.

The purpose of this dissertation is to determine whether questions placed after a story can facilitate and/or assess the inferential process. It was predicted that questions alone would not be facilitative unless information could be accessed by rereading, but questions alone would effectively assess inferences made during comprehension.

To test these predictions, the combination of questioning and rereading was compared both to questioning alone and to rereading alone. Two types of questions were used: schema and factual. Schema questions were to elicit information considered critical to a coherent representation of the text; factual questions were to elicit understanding of specific concepts within the text. Two variables considered in the study were story structure and reading ability.

The subjects of the study were 120 third grade children. Each subject read two stories from a widely used basal reader series. They read either a well-formed or goal-deleted version of each story. Good, average and poor readers were divided equally into four treatment groups. In all conditions, subjects recalled the stories twice. The conditions varied from the control group in terms of whether questioning and/or rereading of the text occurred between the two recalls. Subjects were tested as a group; however, each subject was allowed to proceed at his/her own rate.

The results indicated that questions alone did not facilitate inferential processing, but were very effective in assessing differences in comprehension of implied information. The results further demonstrated that rereading had a significant impact on comprehension, particularly for poor readers, because it embellished representations. However, rereading did not restructure representations of the stories. The combination of questioning and rereading was very effective in enhancing comprehension of good readers, thus demonstrating the value of combining questions and rereading in classroom instruction. Additionally, the results confirmed the importance of well-formed stories in order for accurate comprehension to occur.

THE EFFECT OF INTERLOCKING AND NON-INTERLOCKING READING GUIDES ON THE TEXT COMPREHENSION OF ELEVENTH GRADE ENGLISH STUDENTS

Order No. DA8307708

ARMSTRONG, DIANE P., PH.D. *The University of Toledo*, 1982. 136pp.

Many secondary students have difficulty comprehending their textbooks. While strategies have been developed to help students improve their comprehension, a review of the literature revealed that most of these strategies have not been validated. Although the use of reading guides is theoretically sound, research validation is lacking. The primary purpose of this investigation was to determine the effect(s) of interlocking and noninterlocking reading guides on reading comprehension. Related questions included a comparison of the differential effects of interlocking and noninterlocking reading guides, the effects of both types of guides on students of varying reading abilities, and the issue of transfer.

Sixty-nine subjects were drawn from three eleventh grade English classes, all taught by the same teacher. A one-way ANOVA on the subjects' Ohio Survey Reading Scores revealed that the classes did not differ in terms of reading ability. Each class was randomly assigned to one of three treatments: Experimental Group I--noninterlocking reading guides; Experimental Group II--interlocking reading guides; the Control Group--no reading guides. All reading ability levels were represented in each condition.

Questions for a Pre- and Posttest were selected from two short stories contained in the subjects' anthologies. Reading guides and comprehension tests were based on selected chapters from Steinbeck's *The Grapes of Wrath*. The study was conducted over a period of seven weeks. A Pretest was administered to determine each subject's initial reading comprehension ability. Fourteen treatments were then administered on every other instructional day. Prior to each treatment, a pre-assessment was administered to determine if each subject had read the assignment. On treatment days, subjects in both experimental conditions received the pre assessment, a reading guide, and a comprehension test. Subjects in the control condition received a pre-assessment followed by a comprehension test. Following the treatments, subjects' reading comprehension was assessed by a Posttest, parallel in format to the Pretest.

The results indicated that (1) students who used reading guides evidenced higher comprehension scores than students who did not use reading guides; (2) Interlocking and Noninterlocking reading guides did not differ in their effect on students' reading comprehension; (3) reading guides did not differentially affect students of varying reading abilities; (4) students who used reading guides evidenced greater transfer than students who did not use reading guides.

RELATIONSHIP BETWEEN PLACEMENT AND PRESENTATION OF LEVELS-OF-COMPREHENSION GUIDES AND READING COMPREHENSION

Order No. DA8301623

BELL, V. LAWRENCE, PH.D. *Syracuse University*, 1982. 132pp.

The purpose of this study was to investigate three assumptions Herber (1978) has made concerning his levels-of-comprehension guides. The guides are one component of Herber's Instructional Framework for teaching reading in the content areas. They are constructed by the teacher and presented to the students to guide their reading and thinking at the literal, interpretive, and applied levels of comprehension. The assumptions investigated in this study included: (1) presenting the literal-level guide to students *before* they read a selection facilitates comprehension better than presenting the guide *after* the students have read the selection, (2) guiding students through all three levels of comprehension has a cumulative effect and facilitates comprehension at the applied level better than guiding students at the literal levels only, and (3) guiding students through all three levels of comprehension aids the students in synthesizing the details and ideas from the material with their prior knowledge which in turn aids long-term retention.

Six 8th-grade intact social studies classes (N = 158) were randomly assigned as six treatment groups. On the first day all six groups received a preparation phase which included developing some of the concepts and vocabulary to be studied. On the second day of the study three groups received the literal-level guide before reading the selection and the students responded to the statements while they read the 2,500 word passage. Three groups read the selection and then completed the literal-level guide. All groups discussed the guide in small groups after which a 10-item literal-level multiple-choice test was administered. On the third day four groups completed and discussed the interpretive-level guide. Two of the groups engaged in nonrelated activities but all groups completed the 10-item interpretive-level test. On the fourth day two groups completed and discussed the applied-level guide. The remaining four groups engaged in nonrelated activities. An 8-item applied-level test was administered to all groups. Seven days after the applied-level test was administered, the 28 items from the tests on days two through four were administered in a random order. The three dependent variables used to test the three assumptions included: (1) immediate literal-level test, (2) immediate applied-level test, and (3) delayed applied-level test. . . . (Author's abstract exceeds stipulated maximum length. Discontinued here with permission of author.) UMI

TRAINING WITH FORCED-CHOICE CLOZE TASKS

Order No. DA8304443

BISSELL, LAURICE VANDERMER, PH.D. *The University of Michigan*, 1982. 150pp. Chairman: Donald E. P. Smith

The cloze procedure has been considered an effective means of providing instructional cues for improving reading comprehension while the reader is engaged in the reading act. However, the research results have been disappointing. This study was designed to explore the efficacy of a *modified* cloze task, called Force-Choice Cloze, in improving reading comprehension (as measured by commonly used reading tests), when compared to more conventional methods (Cloze tasks and passages with Multiple-Choice Questions).

Three sets of training materials were constructed from the same passages and were accompanied by a set of feedback conditions.

Eighty-one entering college students deficient in reading skills were randomly assigned within classes to the three treatments.

Between-groups differences in performance on the treatment exercises favored the Forced-Choice Cloze materials. Although standard analyses showed no differences on total scores derived from the test instruments, correlational evidence between scores on the exercises and gain scores on subtests, by group, suggested differences which were specific to particular comprehension skills. Plotted scores pointed to the effects of the relationship between treatment and feedback received. The evidence led to the following conclusions: (1) Whether or not there are differential effects of training as measured by the test instruments on the global skill of reading comprehension is not resolved by this study. (2) The task constraints and the accompanying feedback conditions of the Forced-Choice Cloze materials influence gains in reading efficiency. (3) Training using Forced-Choice Cloze tasks produces improvement in tests measuring words-in-context and vocabulary, a positive effect on a component of the reading process, rather than improvement on the global skill. (4) The Cloze tasks and the Multiple-Choice tasks substantially improve neither the global skill, words-in-context, nor vocabulary.

It also seems likely that the feedback conditions produced a differential effect, either reinforcing (for Forced-Choice Cloze tasks and Multiple-Choice tasks) or punishing (for Cloze tasks) when the feedback received is related to accuracy as well as speed.

AN INVESTIGATION OF THE COMPREHENSION MONITORING ABILITIES OF TENTH GRADERS

Order No. DA8308175

FORD, JEFFREY CLARENCE, ED.D. *University of Georgia*, 1982. 134pp. Director: John E. Readence

The purpose of this study was to examine the comprehension monitoring abilities of tenth graders of average reading ability on several measures. Subjects read three passages representative of social studies text material. Two of the passages contained main idea information that conflicted with the gist of the paragraph in which it was placed. Subjects were randomly assigned to one of two treatment groups. One group received instructions to read the passages with a general editorial purpose, and the other group received instructions that cued them to the possible presence of inconsistent information in some of the passages. After reading each passage, all subjects rated the comprehensibility of each passage, answered nine literal-level comprehension questions for each passage, and rated their confidence in the accuracy of each answer. Finally, all subjects rated the utility of two lists of reading strategies. The strategies in one list were designed to help readers keep track of the state of their understanding, while those in the other list were designed to remedy comprehension failure when it occurs. Two strategies which did not aid in comprehension monitoring were added to each list as foils. Finally, sixteen subjects were interviewed to determine their reasons for selecting certain answers to target comprehension questions.

The statistical data revealed no significant differences between treatment groups on measures of comprehensibility, total number of correct responses to comprehension questions, and confidence in the accuracy of answers. The statistical data suggested that subjects tended to be aware of the accuracy of their answers to the comprehension questions, and that subjects were more confident in the accuracy of their answers to comprehension questions based on the passages that they rated as easy to understand.

The interview data suggested that few subjects apparently noticed the embedded inconsistencies, even though they identified the information to justify their answers to the comprehension questions, and, in several cases, identified both bits of information involved in the inconsistency. Finally, the descriptive data from the lists of reading strategies suggested that while subjects tended to be aware of effective strategies for monitoring their comprehension, they may not have used them independently when given a reading task.

A STUDY OF DOCUMENTS TO MEASURE EARLY ADOLESCENTS, THEIR PIAGETIAN STAGES OF DEVELOPMENT, IQ LEVELS, AND THE INTERACTION OF THESE AND OTHER VARIABLES IN PREDICTING SUCCESS ON A GRAMMAR TASK

Order No. DA8227442

HUDSON, TATE MASON BREWSTER, PH.D. *The University of Akron*, 1983. 198pp.

This study examined a sample of seventh grade students and an entire eighth grade. The problem was to identify relationships between Piagetian stages and academic achievement. A second part of the study investigated the psychometric properties of the instruments. Although in use, they were weak in validity and reliability. A third part of the study tested these properties. To accomplish validation of *An Inventory of Piaget's Developmental Tasks*, frequencies were run to show hierarchies of difficulty. A reordering of subtests would produce a Guttman scale. Factor analysis revealed that the test measures a developmental continuum which can be broken into three stages, concrete, transitional, and formal operational. Validation was demonstrated with a grammar task in which memory was tested against abstract thinking. The grammar test was written in both kernel and transformational forms, and a hierarchy of difficulty was developed to show differences. Task analysis was also shown to be useful in analyzing degree of difficulty. The fourth part of the study tested hypotheses concerning the importance of sex, Piagetian stage, and IQ to academic success. Adolescent judgment, measured by Peel, would predict Piagetian stage. Conclusions indicate that at this age there is no difference in sex in predicting Piagetian stage. Middle grade students can be assigned to groups according to their Piagetian stage, which can predict grammar test scores. Stages also predict a significant amount of variance independent of IQ. A very important conclusion, not studied any place else to date, reveals the importance of the interaction of IQ and stage in predicting academic success.

THE EFFECTS OF INSTRUCTIONS TO IMAGE AND TESTING CONDITION ON RATE OF READING AND COMPREHENSION QUESTION PERFORMANCE

Order No. DA8308749

KEENE, BERNARD JAMES, ED.D. *University of Maryland*, 1982. 148pp. Supervisor: Beth Davey

The purpose of this study was to investigate instructions to image and reinspection of prose for students not reading up to their ability level. In addition, the effects of instructions to image and reinspection on rate of reading, text-explicit, and text-implicit question types were investigated.

Subjects for the study were 144 tenth grade students from sixteen high schools. All subjects scored stanine six on the *Cognitive Abilities Test* and stanine four on the reading comprehension section of the *Iowa Tests of Basic Skills*. Subjects were assigned to treatment groups based on the school they attended. The sixteen schools were randomly assigned to one of the following treatment groups: (a) imagery instruction without inspection, (b) imagery instruction with reinspection, (c) no imagery instruction without reinspection, and (d) no imagery instruction with reinspection of text.

The statistical procedures employed in this study were four two-way ANOVAs for the following dependent variables: (a) rate of reading, (b) text-explicit questions, (c) text-implicit questions, and (d) total questions correct. A post-experimental questionnaire was given to subjects to verify treatment conditions. In addition, the Spearman-Brown formula was used to describe the reliability of the final test instrument.

Within the limitations of this study, the following conclusions were formulated: (1) The findings failed to show that imagery instructions and reinspection influence subjects' performance on multiple-choice

question types and rate of reading. (2) Data gathered from a post-experimental questionnaire revealed that the majority of tenth grade subjects reading below their ability level do appear to process discourse according to the dual coding theory. (3) Although instructions to image were not effective, students who self-reported using imagery performed better on the multiple-choice questions than students who reported they did not use imagery.

Within the limitations of the study, the following implications for instruction were given: (1) There appears to be no advantage or disadvantage in instructing students to form images when the comprehension measure is multiple-choice questions. (2) Instructions to image and reinspection will not necessarily result in increased reading time.

THE INFLUENCE OF STAGING ON CHILDREN'S COMPREHENSION OF EXPOSITORY DISCOURSE

Order No. DA8229395

KLAUK, E. RUSSELL, PH.D. *The University of North Carolina at Chapel Hill*, 1982. 149pp. Supervisor: William S. Palmer

This study investigated the effects of staging on children's comprehension of expository text. Staging is a construct which identifies the prominence of ideas in discourse. A staging analysis consists of (a) identifying the topic and its comment within sentences, (b) distinguishing old information from new information between sentences, and (c) using staging rules (Clements, 1976) to combine these distinctions into a hierarchy, with height representing degree of prominence.

Subjects were 40 sixth-graders stratified by reading ability and selected randomly. Target passages were extracted from grade-level classroom textbooks (social studies and science). Predictions were that information staged high is better recalled than information staged low and male subjects recall more information than female subjects.

The notational system of Tierney, Bridge, and Cera (1978-1979) was used to represent the semantic base of both the target passages and subject protocols. Recall scores were determined by comparing the presence or absence of concepts and relations in the protocols to the text base.

Results revealed that subjects recalled information staged high better than information staged low. Only the mean recall score of female subjects on the social studies passage failed to be significant statistically ($p > .05$), although the mean score was in the predicted direction. No significant differences were found between the mean recall scores of male and female subjects nor between the mean recall scores of good and poor readers. Interest in content and background knowledge of subjects had little effect on results. Between passages, however, authors' rhetorical decisions, content, and staging patterns affected the quantity of propositional recall.

Findings indicate that staging exerts a strong influence on children's comprehension of expository discourse. With a staging analysis, it becomes possible to determine which ideas in discourse sixth-graders are likely to recall and not recall. Staging affects the comprehension of commercially produced textbooks and its influence is present across content.

This study questions the recency and mid-passage effects of serial position theory. It is suggested that authors can attenuate the reader's receptive processing burden by staging important information high in the text macrostructure, using propositional overlap to relate new information to old information already stored in memory.

PROCESS AND PRODUCT MEASURES OF COMPREHENSION IN FORMAL TESTING AND INFORMAL READING-TO-LEARN SITUATIONAL CONTEXTS

Order No. DA8301162

MCAULIFFE, SHEILA RAE, ED.D. *University of Northern Colorado*, 1982. 151pp.

Purpose of the Study. The purpose of this investigation was to gather product and process data in order to investigate the possibility that product measures of standardized reading comprehension tests mistake a competence for a performance measure.

Procedures. Forty students in College Reading and Study Skills Classes were involved in two different comprehension events: (a) a standardized comprehension test setting, and (b) an informal reading-to-learn setting. There were asked to report comprehension strategies that they had used in each setting.

A case study investigation was conducted to investigate the comprehension processing of six students of the original 40 placed at the Nelson-Denny third and seventh stanines to see if and how their comprehension processes differed. Background was assessed in taped pre-reading interviews. Interest was rated after reading. Students' retellings were analyzed and compared for ratings of interest and background.

Treatment of Data. Comprehension scores for Nelson-Denny passages were compared for informal and formal settings by using a t-test for difference between two correlated samples.

The frequencies of students identifying factors of comprehension used in the two settings were compared through the application of chi-square in testing the significance of difference between proportions.

Pearson r was used to test correlation between Nelson-Denny scores from the formal setting and written retelling scores from the informal setting.

Propositional analysis was used to explore possible trends and differences of practical significance in comprehension processing between students placed at the third and seventh stanine of the Nelson-Denny.

Conclusions. (1) Students seemed better able to comprehend in an informal setting. (2) Reported use of personal strategies and background during comprehension was higher in the informal setting. (3) Expected frequency of error was high when predictions of comprehending abilities in informal settings was based on formal test scores. (4) Formal scores based on multiple choice questions often misjudged students' abilities to comprehend. (5) The relationship between interest and background and numbers of propositions recalled was generally positive. (6) Students at the third stanine often scored better in informal settings than students at the seventh stanine when they had higher interest or background ratings.

THE EFFECTS OF ADJUNCT QUESTIONS ON PROSE COMPREHENSION IN HIGH VOCABULARY/LOW COMPREHENSION HIGH SCHOOL STUDENTS

Order No. DA8305937

MCEADY, BETTY J., ED.D. *University of San Francisco*, 1982. 506pp. Chairperson: S. Alan Cohen

Statement of the Problem. In this study the relationship between reading comprehension and adjunct questions was examined. Specifically, six types of questioning techniques were assessed to determine the relative effect of each on higher-level cognitive processing in high school students who have higher vocabulary scores than comprehension scores. To test the optimal effect of each questioning strategy six prose selections were modified to accommodate the insertion of low-order and high-order questions throughout each selection. The six strategies were: (1) pre-passage low-order questions; (2) post-passage low-order questions; (3) pre-passage high-order questions; (4) post-passage high-order questions; (5) combined low-order and high-order questions placed before and after relevant passages, respectively; (6) no inserted questions.

Procedures. The modified selections were administered to seventy-two urban and seventy-two suburban high school students whose reading levels ranged from seventh to twelfth grade, as measured by the Gates MacGinite survey, Forms E and F, and the Stanford Diagnostic Test, Blue Level, respectively. After reading each selection, the subjects were examined on the amount of questioned (intentional) and non-questioned (incidental) content retained.

Posttest results in this 6 x 2 x 6 randomized block factorial design were analyzed in a three-way Analysis of Variance of treatment effect, reading aptitude, and order-selection.

Results. In this study adjunct questions had no significant effect on reading comprehension regardless of placement (before or after) or type (low-order and high-order) of question. Findings suggest that question effect was washed out by reading aptitude, selection readability characteristics, study time constraints, and the arrangement of questions and content on the same page.

Conclusions. (1) The arrangement of questions and content on the same page is not a reliable stimulus--control format for assessing adjunct-question effect. Such a format makes it difficult to determine whether questions were read as instructed. (2) Question effect is a function of reading aptitude, suitability of specific questions to the

reader's ability level, selection readability characteristics and study time. (3) Instructional designers who use adjunct questions to facilitate meaningful processing of written discourse may need to consider age, grade level, and ethnicity, but may not need to consider gender.

THE EFFECTS OF INSTRUCTION IN MENTAL IMAGERY AND A MODIFIED CLOZE PROCEDURE ON READING COMPREHENSION

Order No. DA8307659

McGovern, Betty Lou, Ed.D. *East Texas State University*, 1982. 82pp. Adviser: Dr. Mary Jernigan

Purpose of the Study. This study was designed to determine the effect of instruction in mental imagery and a modified cloze procedure on reading comprehension.

Procedure. Ninety-four sixth-grade students enrolled in language arts classes in Durant Middle School, Durant, Oklahoma, participated in the study. Using a random procedure, two groups were selected to serve as experimental groups receiving instruction in mental imagery in addition to the prescribed basal reader, two groups were selected to serve as experimental groups receiving instruction in a modified cloze procedure in addition to the prescribed basal reader, and one group was selected to serve as a control group using only the prescribed basal reader. The study was conducted for a two-week period.

The reading comprehension sub-tests of the *Gates-MacGinitie Reading Test*, second edition, 1978, Level D, Forms 1 and 2, were used as a pre- and post-test. The research design was an analysis of covariance with the pre-test scores serving as a covariate. The .05 level of significance was used.

Findings. The results of the analyses were as follows: There were no significnat differences between the adjusted post-test means of mental imagery boys and control boys; mental imagery girls and control girls; mental imagery boys and mental imagery girls; mental imagery boys and modified cloze procedure boys; modified cloze procedure girls and control girls; modified cloze procedure boys and control boys; total mental imagery group and total control group; modified cloze procedure boys and modified cloze procedure girls; total modified cloze procedure group and total control group; total mental imagery group and modified cloze procedure group. The adjusted post-test mean of modified cloze procedure girls was significantly different than the adjusted post-test mean of mental imagery girls.

Conclusions. (1) Instruction in mental imagery had no significant effect on reading comprehension achievement. (2) Instruction with a modified cloze procedure had no significant effect on reading comprehension achievement of sixth-grade boys. (3) Instruction with a modified cloze procedure was significantly more effective in improving reading comprehension with sixth-grade girls than instruction in mental imagery.

THE EFFECTS OF THE USE OF THE CLOZE PROCEDURE EMPLOYING SINGLE WORD AND MULTIPLE SEQUENTIAL WORD DELETION FORMAT ON READING COMPREHENSION

Order No. DA8228193

Marandos, Sam Anthony, Ed.D. *University of San Francisco*, 1982. 112pp. Chairperson: Dr. Joan Hyman

Traditionally the cloze procedure utilizing single word deletion has been used in research as an assessment and instructional tool, but some of the literature has indicated that the single word deletion procedure use remains essentially on the literal level. This study has proposed a multiple word cloze procedure which demands that the reader make evaluations, critical analyses, synthesize the information, and draw conclusions.

A 2 x 2 mixed experimental design employing ANCOVA analyses was used with fifty-four fifth graders in a rural school of northern California. The mixed design allowed comparisons between treatment groups and testing conditions within groups.

The two independent variables were: (1) cloze deletion treatments and (2) testing conditions. The three dependent variables were: (1) correct responses on the multiple word deletion cloze test (MWD), (2) correct responses on the single word deletion cloze test (SWD), and (3) the California Test of Basic Skills (CTBS) comprehension test.

Subjects were randomly assigned to one of the two treatment conditions which consisted of twelve cloze passages using the respective single or multiple word deletion format. Subjects using the MWD tasks did significantly better in general comprehension acquisition (measured by the CTBS), thereby supporting the major hypothesis of the study and the sequential redundancy model of reading. Two other hypotheses were upheld and another was directionally supported.

Traditionally, cloze procedure has used single work deletion, but this study, which introduces a multiple word deletion procedure, found significant comprehension gains for the MWD group. After twelve classroom hours with this technique, students in the MWD treatment group increased comprehension by seven months over the SWD group. It appears, then, that MWD is directly supported by the psycholinguistic processes of reading theorized by Smith and Goodman and supported by the respective cognitive processes theorized by Osgood and Gagne.

THE USE OF THE CLOZE PROCEDURE IN AFFECTING READING COMPREHENSION AND THE ROLE OF A BUILDING PRINCIPAL IN THE EXPERIMENTATION

Order No. DA8229296

Marley, Bernard Michael, Ph.D. *Southern Illinois University at Carbondale*, 1982. 107pp. Major Professor: Dr. William E. Shelton

One of the main goals of the school principal is the improvement of instruction. This study, made in the Nokomis (Illinois) Elementary Schools, was to further research in what ways the principal could assist his staff in experimentation and program development in remedial reading. A second question was to what extent the use of the cloze procedure could increase reading comprehension.

The research design was a combination of experimental research and normative survey and anecdotal records.

The experimental part of the study involved students in second through eighth grade who were academically six or more months behind in reading comprehension. The experimental group was given a set of thirty lessons over a fifteen-week period involving the cloze procedure as a means of improving comprehension skills. The control group received regular instructions in the remedial pull-out classes but no cloze lessons were given them.

Each learner was administered a pre- and posttest of the Science Research Associates Reading Comprehension Subtest. A *t* test was applied to the results to determine the effectiveness of the cloze procedure.

The normative survey and use of anecdotal records part of the study was to determine the effectiveness of a principal in improving the instructional process through development of a remedial reading program by experimental study.

The conclusions reached in this study were: (1) a principal affects the educational program when he is actively involved in the instructional process; and (2) the cloze procedure did not prove to be a significantly better method for improving reading comprehension than the methods presently used in the remedial reading program in the Nokomis schools.

FACTORS RELATING TO DISSIMILAR READING ACHIEVEMENT IN MATCHED SECONDARY SCHOOLS

Marron, Jamie Patricia, Ed.D. *University of Southern California*, 1982. Chairperson: Professor Grayce Ransom

Problem and Purpose. The problem was the growing concern over reading achievement at the secondary level. The purpose was to investigate factors within a total secondary school that may be related to reading achievement.

Procedure. The study was a descriptive research design using an ethnographic approach to studying two matched secondary schools with dissimilar reading achievement scores. The schools selected were matched for principalship stability, student body stability, and socio-economic equality. Utilizing lists compiled by the California State Department of Education, schools which had scores above their

comparison score bands and increased their total reading scores each year for the years 1975-76, 1977-78, and 1978-79 were matched against schools scoring below their comparison score bands and decreasing in their total score each year over the same period of time.

Selected Findings. (1) Principals at both schools described themselves as committed to reading instruction as a school priority. (2) There were major differences in what administrative commitment to reading consisted of at the two schools. (3) The nature of the reading program at the increasing school was greater in scope than at the decreasing one. (4) More books were checked out, on the average, at the increasing school. (5) The increasing school offered more classes to accommodate reading levels and stressed a Silent Sustained Reading Period. The increasing school also conducted a needs assessment and participated in more school-wide inservice.

Conclusions. (1) The principal's role and school's financial commitment to reading instruction were related to reading achievement. (2) Reading achievement was higher in a school with (a) a reading program of a broad scope, (b) an on-going inservice program, (c) a tutoring program, (d) a higher usage of the library by the students.

Recommendations. (1) The principal of the school should use his or her role to support reading instruction by defining the school's reading instruction as a school-wide priority, (2) Each school should conduct a needs assessment of how reading instruction is being handled, and should encourage student use of the library. (3) The effects of content-area inservice on a school's total reading achievement needs further research exploration.

AN INVESTIGATION INTO MIDDLE SCHOOL STUDENTS' KNOWLEDGE OF TEXTBOOK METASTRUCTURE

Order No. DA8308190

MATEJA, JOHN ANDREW, PH.D. *University of Georgia*, 1982. 242pp. Director: John E. Readence

This study attempted to provide answers for two questions. The first involved finding the relation between students' levels of knowledge of textbook metastructure and other measures of functioning. The second sought to discern the strategies that students possessing different levels of knowledge employed relative to textbook metastructure.

One hundred and sixty-nine sixth grade students were tested in intact, homogeneous, content area classes during normal school hours. Quantitative data were collected relative to students' functioning on measures of textbook metastructure, reading achievement, mathematics achievement, grade point average, days of attendance, attitudes toward school subjects, and mental abilities. Follow-up structured interviews were conducted individually with 12 students to ascertain the kinds of strategies employed in processing textbook metastructure.

Data from the dependent variable and the independent variables were analyzed using a multiple linear regression technique. In a predetermined order, the six variables were entered into the estimated linear equation that was applied to the criterion measure. Results indicated a statistically significant linear relation between cores on the test of textbook metastructure and functioning on other measures. The independent variables accounted for approximately 36% of the variance of the scores on the dependent variable. However, only the achievement variable, i.e., scores on the reading and mathematics subtests, made statistically significant contributions to the prediction of performance on the test of textbook metastructure. A reduced model regression analysis revealed that those two factors accounted for approximately 35% of the variance in the scores on the criterion measure.

Verbal reports from selected subjects were used to describe the cognitive processing strategies relative to textbook metastructure. Students' self-reports indicated the utilization of strategies generally described as being: (1) text-based (concrete), (2) text- and reader-based (concrete and abstract), and (3) reader-based (abstract). Direct relations appeared to exist between students' levels of knowledge of textbook metastructure and students' types of processing strategies. Changes in processing strategies occurred when students experienced difficulties in responding to new information or gained insight from making connections between new and old information.

AN EXAMINATION OF ELEMENTARY PUPILS' ABILITIES TO PERFORM CLOSURE AT VARIOUS CASE GRAMMAR POSITIONS AT THEIR INDEPENDENT READING LEVELS

Order No. DA8227693

MILLS, SHEILA ANN BUZAS, PH.D. *The University of Texas at Austin*, 1982. 142pp. Supervisor: Thomas D. Horn

This study compared third-graders' and sixth-graders' performance on cloze passages in which words were deleted at random or on the basis of case grammar category. There were 80 subjects in each group. The data were analyzed within the framework of a 2 x 2 x 2 factorial design. An analysis of variance was performed to compare group means.

The findings of this study include the following: (1) sixth-graders were superior to the third-graders in the performance of cloze, (2) all subjects' performance improved when case grammar position deletions were utilized, (3) all subjects' performance was improved when given the letter(s) representing the initial phoneme of the deleted word, (4) when given the initial letter(s) clue, the third-graders' performance on the case grammar condition approximated that of the sixth-graders, and (5) the percentage of correct responses did not increase as a function of passage length.

Conclusions based on the study were as follows: (1) pupils perform cloze with increased accuracy when the words deleted are selected by case grammar categories, (2) the deletion of words based on semantic categories has a more facilitative effect upon pupils' abilities to reinsert words in a cloze passage than the deletion of words at random, and (3) less-skilled readers (the third-graders) were more dependent upon having letter information than the skilled-readers (sixth-graders) to utilize semantic information effectively.

SENTENCE-COMBINING ABILITY AND THE READING COMPREHENSION OF SIXTH-GRADE READERS

Order No. DA8310248

MOELLER, NORMA M., ED.D. *Hofstra University*, 1982. 134pp.

The major purposes of this investigation were: (1) to determine if there was a significant relationship between sentence-combining ability and reading comprehension for good, average, and poor readers; and (2) to determine if there were significant differences among good, average, and poor readers in number of t-units, number of sentence-combining transformations, and scores on a sentence-combining task.

It was hypothesized, stated in null terms, that (1) there would be no significant relationship for good, average, and poor readers between total number of sentence-combining transformations and reading comprehension scores; and (2) there would be no significant differences among good, average, and poor readers in total number of sentence-combining transformations, total number of t-units, and total scores on the sentence-combining task.

The subjects were 221 of the 264 sixth-grade students from eleven heterogenously grouped classes comprising the total sixth-grade population in the Amityville, New York, public schools.

The Metropolitan Achievement Test (MAT) and the Degrees of Reading Power Test (DRP) were administered as measures of reading comprehension. A written composition on the topic: "An Important News Event I Remember Is..." was elicited from the students and a ten-item sentence-combining task was administered.

Writing samples were analyzed to determine number of t-units and number of sentence-combining transformations. Then the sentence-combining task was scored. Data were analyzed by computing correlations between number of sentence-combining transformations and reading comprehension scores for good, average, and poor readers, and one-way analysis of variance tests were performed to determine if significant differences existed among good, average, and poor readers in number of sentence-combining transformations, number of t-units, and scores on the sentence-combining task.

Findings indicated: (1) Sentence-combining ability appeared to be significantly related to reading comprehension scores for good, average, and poor readers. (2) Significant differences were found among good, average, and poor readers in numbers of sentence-

combining transformations and scores on a sentence-combining task. (3) There were no significant differences in numbers of t-units in written compositions among good, average, and poor readers.

It was concluded that sentence-combining ability seemed related to level of reading comprehension and that this ability may discriminate among good, average, and poor readers.

THE INTERRELATIONSHIPS OF FOURTH GRADE STUDENTS READING ACHIEVEMENT, ORAL GENERATION AND WRITTEN PRODUCTION AS DETERMINED BY FACTORS FOUND IN FOUR READABILITY FORMULAS

Order No. DA8229749

MOHLER, LYNETTE EILEEN ZUROFF, ED.D. *Montana State University*, 1982. 123pp.

The purpose of this study was to determine the interrelationships existing among reading achievement, written language production and oral language generation of fourth grade students in Helena, Montana and Glendive, Montana through application of those verbal elements found in the Lorge Readability Formula, the Lazdowski Sample Survey, the Fog Index and the Botel and Granowsky Syntactic Complexity Formula.

The problem was investigated by (a) administering the Gates MacGinitie Reading Achievement Test, Level D, Form 1 to 255 fourth grade students; (b) asking these students to complete, in writing, a story starter; (c) having the students orally tell a story; (d) transcribing the oral generations into written form; (e) applying the Lorge Readability Formula, the Fog Index, the Lazdowski Sample Survey and the Botel and Granowsky Syntactic Complexity Formula to each oral and written sample.

After the Pearson product-moment correlation was employed the results of this study indicated that (a) there was no statistically significant relationship between fourth grade students' total reading achievement scores and their writing levels as measured by the Lorge Readability Formula, the Lazdowski Sample Survey, nor the Fog Index; (b) there was a statistically significant relationship between fourth grade students' writing levels as measured by the Lazdowski Sample Survey and their reading comprehension levels; (c) there was a statistically significant relationship between fourth grade students' total reading achievement scores and their writing levels as measured by the Botel and Granowsky Syntactic Complexity Formula; (d) there was no statistically significant relationship between fourth grade students' reading achievement levels and their oral production as measured by the four readability formulas; (e) there was no statistically significant relationship between written generation and oral production as measured by the Lorge Readability Formula, the Lazdowski Sample Survey or the Fog Index; (f) there was a statistically significant relationship between fourth grade students' speaking and writing levels as measured by the Botel and Granowsky Syntactic Complexity Formula.

Stepwise multiple regression identified an R^2 of .42800 after the inclusion of seventy-two independent variables used in this study. It was concluded that the variables employed in this study, when applied to written and/or oral productions, did not provide an effective linear prediction of reading achievement.

THE QUANTITY AND VARIETY OF EIGHTH GRADERS' INFERENCES IN RESPONSE TO TWO NARRATIVES AS ASSESSED BY ORAL RECALL AND ORAL INTROSPECTION

Order No. DA8229226

PADAK, NANCY DOYLE, ED.D. *Northern Illinois University*, 1982. 255pp. Director: Jerry L. Johns

This study was designed to investigate the quantity and variety of inferences made by eighth grade males and females who read two long, narrative prose selections. Inferences were assessed through oral recall and through oral introspection.

Sixteen male and sixteen female eighth grade students of average IQ and reading ability were randomly selected and placed into the eight cells of the experimental design: 2 (sex) x 2 (passage) x 2 (assessment condition). Two narratives of similar length, readability, and general interest served as materials. Each passage was divided into four sections.

Subjects worked individually with the investigator. After a general introduction, subjects practiced assigned procedures with a "warm-up" passage. The experimental passage was then read in one-section segments, with recall or introspection after each section had been read.

Sessions were tape-recorded and transcribed verbatim. Transcriptions were analyzed to determine the number and types of inferences they contained. A taxonomy of inferences proposed by Warren, Nicholas, and Trabasso (1979) was adapted for categorizing inferences by type. Implausible inferences received partial credit. Score reliability was high.

A three-way factorial analysis of variance was used to test hypotheses related to the quantity of inferences generated. Three chi-square tests were used to test hypotheses related to the variety of inferences generated.

No statistically significant differences were found in the number of inferences made by males and females, the number of inferences made from the two passages read, or the number of inferences made in response to the oral recall or oral introspection directions. Furthermore, none of the interactions between or among these three factors was significant.

Statistically significant differences were found in the following areas related to the types of inferences made: males made fewer logical inferences and females made more logical inferences than expected; one passage yielded more informational but fewer evaluative inferences, and the other passage yielded fewer informational but more evaluative inferences than expected; oral recall directions resulted in fewer logical and evaluative inferences but more informational inferences that expected; and oral introspection directions resulted in more logical and evaluative inferences but fewer informational inferences than expected.

THE EFFECT OF TABULAR AND GRAPHIC PRESENTATION ON READER RETENTION, READER REACTION AND READING TIME

Order No. DA8229227

PETERSON, BECKY KAREN, ED.D. *Northern Illinois University*, 1982. 272pp. Director: Larry D. Hartman

An experiment was conducted to determine if there is a relationship between the method of presentation of data in a report and (1) reader retention, (2) reader reaction and (3) reading time, when analyzed by the sex, academic major, grade point average and learning style.

Data were collected through the administration of a test given to 625 students enrolled in capstone management classes at accredited schools of business that were selected on a stratified random basis.

Each student received one of four forms: (1) narrative only, (2) narrative with tables, (3) narrative with graphs or (4) narrative with both tables and graphs.

Students: (1) recorded the amount of time taken to read the report, (2) answered 24 multiple-choice questions about the report, (3) indicated their reaction to various aspects of the report, such as organization, and (4) provided personal data.

Results showed that narrative with the aid of tables was most effective in helping reader retention. Retention was also affected by academic major and reported grade point average. Students from accounting and office administration majors obtained the highest scores. Students with a grade point average of 3.0 or better obtained a higher mean score than students with a grade point average below 3.0.

In addition, results showed that students reacted most positively to narrative with graphs. Reader reaction was affected by sex; overall, females reported more positive reactions than males.

Students who read narrative with tables took the least amount of time to read the report. Reading time was not influenced by any of the independent variables.

Tables should be used to improve reader retention and reading time. Graphs should be used to help reader reaction. Narrative alone should be used only when the other forms are not possible.

IDENTIFICATION OF THE GIFTED THROUGH COGNITIVE LEVEL AND READING ACHIEVEMENT Order No. DA8310884

SAPERTON, PATRICIA SANTEMMA, PH.D. *Hofstra University*, 1983. 224pp.

This investigation was designed to identify gifted children through their cognitive level and reading performance. The study provides an alternative to traditional intelligence testing, based on data which indicates that the gifted can be identified through an assessment of their cognitive level and reading achievement.

The theoretical framework for this study rests on Piaget's stage theory of cognitive development. Studies are cited which show that gifted children move through the same stages as other children, but at an accelerated pace. It therefore becomes possible to identify gifted children through their cognitive stages, as they move into the range of formal reasoning.

The Arlin Test of Formal Reasoning was used to assess the cognitive level of each student in the study. The test was administered to 25 students in a combination fifth-sixth grade gifted class, and to four hundred and nineteen seventh grade students. Two sixth grade males, ten seventh grade males, and four seventh grade females were found to be reasoning at the high formal level. The fourteen seventh grade students were identified by Dr. Arlin as gifted.

Performance of the gifted fifth, sixth, and seventh graders was assessed according to sex and grade level on four different types of reading comprehension measures: Cloze, Maze, Multiple Choice, and Op-In. No significant effect for sex was found. A significant main effect for grade level was found for the Maze, Multiple Choice, and Op-In Tests. Significant correlations were found for the fifth grade group between Cloze and Op-In, and between Maze and Multiple Choice. Significant correlations were found for the sixth grade group between Cloze and Op-In and between Multiple Choice and Op-In. The four reading tests were found to predict significantly the scores of the Arlin Test.

Student interviews revealed varied opinions of the gifted students about their reading behaviors. Their preferences were eclectic and related frequently to sex and grade level. Student interviews also revealed that, unlike the sample from which they were drawn, more than fifty percent of these gifted children were first born.

AN INVENTORY OF COGNITIVE STYLE: VALIDITY, RELIABILITY, AND CORRELATION WITH READING ACHIEVEMENT Order No. DA8303323

SHARP, PATRICIA MALONEY, PH.D. *Washington State University*, 1982. 151pp. Chair: Gerald Maring

Nature of the Study. The intention of the study was to develop an inventory of cognitive style based on an application of neuropsychological findings. Three specific purposes were designed to examine the inventory's validity, reliability, and relationship between cognitive style and reading achievement.

Procedures. Based on previous research, a 26 item inventory was designed to reflect hemispheric functioning in the areas of perception, processing, and recall of information. Correlational statistics were used to determine the relationship between the 170 randomly selected fourth grade subjects' scores on this inventory and another accepted measure of cognitive style (Sigel Cognitive Style Test). A chi-square analysis was used to test the difference between teacher classification of reading and spelling patterns and cognitive style test classifications. Reliability was determined with split-half and retest procedures. Point biserial item correlation and inter-rater agreement were also determined. Finally, the relationship between reading achievement and cognitive style was determined by point biserial correlations.

Findings. Major findings of the study were the following: (1) Fourth graders' performance on the inventory and their performance on the Sigel Cognitive Style Test was found to correlate (.17) at the .05 level. (2) Split-half (.69), test-retest (.60), and inter-rater (.53 -- .81) analyses for the inventory indicated reliability ($p < .05$). Point biserial correlations (.44 -- .56) found six of the 26 items on the inventory to significantly ($p < .05$) differentiate between the two criterion groups. These groups represented predominant analytic processing associated with the cognitive style of the left hemisphere and predominant nonanalytic processing associated with the cognitive style of the right hemisphere. (3) A coefficient of .24 ($p < .01$) was found between balanced cognitive style when measured by the inventory and good reading ability.

Overall, this study suggested support for the notion of hemispheric-based cognitive style. It was concluded, however, that only through extensive refinement using neurometric evidence will an instrument such as the inventory be valid for diagnosing some clinical subtypes of reading disability.

THE EFFECTS OF READABILITY, STUDY GUIDES AND LISTENING-READING ON THE COMPREHENSION OF SIXTH GRADE SOCIAL STUDIES TEXTBOOK MATERIALS Order No. DA8300779

SHOREMAN, DANIEL J., ED.D. *Boston University School of Education*. 1982. 201pp. Major Professor: Thomas E. Culliton Jr.

This study investigated the effects of readability level, study guides and simultaneous listening-reading on social studies textbook comprehension. Twelve intact sixth grade classes totaling 245 students from a suburban Boston community were used. The tests administered were: (1) The *Iowa Test of Basic Skills*, Reading Comprehension subtest, to measure reading level. (2) The *Otis-Lennon Mental Ability Test* to measure IQ. (3) Four weekly tests devised by the investigator to measure comprehension.

The statistical procedures used were analysis of variance, analysis of variance with four repeated measures and the Scheffé test. *Question 1*: What are the differences in social studies textbook comprehension of sixth grade students when the following treatment methods are presented: the original text untreated, the text rewritten to a fourth grade level of readability, the original text accompanied by study guides and simultaneous reading and listening of the original text?

Findings: The Rewritten Text was significantly superior to the Original at the .05 level using the Scheffé procedure. The Study Guide and Listening-Reading methods were significantly superior to the Original at the .01 level.

THE EFFECTS OF STRUCTURAL ORGANIZERS AND RHETORICAL PREDICATES ON THE RECALL OF EXPOSITORY TEXT Order No. DA8308127

SLATER, WAYNE HARVARD, PH.D. *University of Minnesota*, 1982. 228pp.

An experiment was conducted to determine if providing subjects with prior information about the organization of expository passages improved subjects' recall of information from the passages. Subjects ($N = 224$) were randomly assigned to one of four treatment conditions: a structural organizer with outline grid, a control condition with notetaking, a structural organizer without outline grid, or a control condition without notetaking. The target passages were organized with one of four clearly identifiable organizational patterns: adversative top-level structure, attribution top-level structure, covariance top-level structure, or response top-level structure. Two dependent measures were used in the experiment: written recall protocols and multiple-choice tests.

The main effect of Treatment was significant ($p < .001$) for both dependent measures. Results from the written recall protocols indicated that subjects in the structural organizer with outline grid treatment condition recalled significantly more propositions than subjects in the control condition with notetaking. However, there was no significant difference in recall for subjects in the structural organizer without outline grid treatment condition and the control condition without notetaking. Results from the multiple-choice tests indicated that subjects in the structural organizer with outline grid treatment condition did not score significantly better than subjects in the control condition with notetaking. However, subjects in the structural organizer without outline grid treatment condition scored significantly better than subjects in the control condition without notetaking. The main effect of passage organization was not significant ($p > .05$) for both dependent measures.

The results were interpreted as providing qualified support for providing subjects with prior information about the organization of expository passages. Additionally, the results were interpreted as indicating that the treatments were equally effective with the four organizational patterns selected for the study.

AN EXPERIMENTAL STUDY OF THE LEGIBILITY OF MINUS LETTERSPACING OF TYPOGRAPHY AS MEASURED BY SPEED OF READING AND COMPREHENSION

Order No. DA8304370

TURNER, RALPH J., PH.D. *Ohio University*, 1982. 146pp. Director of Dissertation: Professor Russell N. Baird

The purpose of the study is to investigate whether legibility suffers, remains the same, or improves in conditions in which letterspacing of body type is reduced below "normal" levels.

One-hundred forty-four persons were used as subjects including 96 divided equally into two experimental groups and 48 in a control group. Each person read four passages and answered the related questions as measures of speed of reading and comprehension respectively. The passages and questions were from *The Nelson-Denny Reading Test*.

Half of the experimental subjects read the passages in 9-point type and the other half read the passages in 10-point type.

Each person in both groups read four different passages, each passage with a different type treatment: one set in serif type with normal letterspacing, one in serif type with minus one-unit letterspacing, one in sans serif type with normal letterspacing and one in sans serif type with minus one-unit letterspacing. An 18-unit em was used.

Speed of reading was determined by counting the number of characters read during a 90-second period. Characters were normed to average words by dividing total characters by five. Comprehension was measured by the number of correct answers of eight multiple choice questions based on each of the four passages read.

Five hypotheses were tested: (1) serif type normal spacing compared with serif type minus spacing, (2) sans serif type normal spacing compared with sans serif type minus spacing, (3) serif type normal spacing compared with sans serif type minus spacing, (4) sans serif type normal spacing compared with serif type minus spacing and (5) 10-point type minus spacing compared with 9-point type normal spacing.

Out of 24 comparisons resulting from the research design--12 for reading speed and 12 for comprehension--no significant differences are found in 20. Out of the four significant differences which did result, three are in favor of minus spacing and one is in the direction of normal spacing.

THE DEVELOPMENT OF A DIAGNOSTIC INSTRUMENT FOR DETERMINING NEEDS FOR INSERVICE TRAINING IN READING COMPREHENSION

Order No. DA8304993

WATSON, DODGE RONALD, ED.D. *Auburn University*, 1982. 153pp. Director: John C. Walden

The purpose of this study was to develop and field test an instrument to measure knowledge concerning the literal, interpretive, and evaluative levels of reading comprehension to serve as a needs assessment for teacher inservice programs. The procedures used in the development of the instrument included a review of the literature, the development of an outline for the instrument modeled on Barrett's (1968) work, the submission of the outline to a panel of experts, and a field test of the instrument. Two groups of college students were used in the preliminary pilot testing, and the instrument was refined by eliminating and/or clarifying items on the basis of the pilot testing. A final draft of the instrument included 11 demographic items and 68 comprehension items.

A field test of the instrument was conducted with a total of 110 teachers and other professional educators. From that group usable results were gathered from 104 respondents. The data resulting from the test provided information useful not only in refining and further developing the test but also in supporting instrument validity and reliability. Content validity of the instrument was determined by the judgment of a panel of experts regarding instrument content and by a content validity matrix developed from the review of literature. Internal consistency reliability was calculated using the alpha coefficient with a reliability coefficient of .95.

A preliminary factor analysis of the data revealed one strong general factor and a series of other undeveloped factors.

Difficulty and discrimination indices calculated for each item in the test indicated that 40 of the 68 items met the discrimination criterion, and 41 of the 68 items met the difficulty criterion.

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